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## PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF APPEALS AND INTERFERENCES

DN A01463

In re application of: Brian Michael Bridgewater, et al..

Serial No. 10/700,078

Group Art Unit: 1714

Filed: November 3, 2003

Examiner: V. Nerangis

For: AQUEOUS ACRYLIC EMULSION POLYMER COMPOSITION

Honorable Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

## RESPONSE TO EXAMINER'S ANSWER TO APPEAL BRIEF

This is a Response to the Examiner's Answer of November 18, 2009 to Appeal Brief. Appellants had filed an Appeal Brief on September 30, 2009 for the above-referenced patent application.

## CERTIFICATE OF FIRST CLASS MAILING

Dear Sir:

I hereby certify that this Response to Examiner's Answer to Appeal Brief is being transmitted by facsimile to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 at 571-273-8300 on the date indicated next to my signature below.

Date: January 18, 2010. Signature:

Andrew G. Bunn

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### Appellants' Response

This is a Response to the Examiner's Answer of November 18, 2009 to the Appeal Brief filed on September 30, 2009 for patent application number 10/700,078, originally filed November 3, 2003.

The Examiner has introduced a new issue that Appellants wish to address. On page 10 (second paragraph) of Examiner's Answer, it is stated: "First, each of the inventive examples that have a proper corresponding comparative example...has an emulsion polymer prepared from ureido monomer." On page 11 (below the table), it then states: "Furthermore, the emulsion polymer is not reasonably commensurate in scope with the claims given that each one contains crosslinking monomer ureido monomer (*sic*) which is not claimed in independent claim 2."

#### *The Reason Ureido Monomer is Present*

The first Office Action in the case (April 4, 2005) stated (page 4, third paragraph) that Appellants "data on pages 17-24 do not show how the emulsion polymers utilized by Friel are different or produce different products than presently claimed." Appellants argued (Response of November 15, 2005, page 3, second paragraph) that "The Comparative Examples shown in the Application are representative of the prior art including Friel..."

The Board of Patent Appeals and Interferences noted that the Appellants failed to compare directly to a cited Friel composition (Decision on Appeal, June 28, 2007, Appeal No. 2007-0504 for serial no. 10/700,078, page 7, second paragraph). Appellants were directed by the Examiner to directly compare one of the cited Examples of Friel with the inventive process. Both of the cited Examples of Friel (Sample 3 and Sample 7, see first Office Action, April 4, 2005, page 4, first paragraph) contain ureido monomer (see Friel, Sample 3: Col. 7, Table 1, and Sample 7: Col. 8, line 35). The polymers that are used to draw comparisons with Sample 3 of Friel are therefore required to comprise the ureido monomer.

*Claim Scope*

The wording of claim 2 includes the word comprising, so unspecified monomers may be present (the ureido monomer is present at a level of 1% by weight of the dry polymer in both Samples 3 and 7 of Friel, and the Examples in the Declaration of March 3, 2009). Moreover, if the presence of ureido monomer places the polymer outside of the claim, then the Friel polymer is also outside of the claim, and the 102(b) rejection of claim 2 should be withdrawn.

*The Prima Facie Case of Obviousness is Flawed*

The only case presented in providing a prima facie case of obviousness with respect to the Friel disclosure was that the products appeared to be the same (see, for example, the first Office Action in the case, April 4, 2005, page 4, third paragraph, or the December 3, 2008 Office Action, page 3, fourth paragraph, referenced in the Final rejection of April 30, 2009, page 2). However, the data presented in the Declaration of March 3, 2009 (page 5, Table 2) shows that the products by the two processes are not the same.

The Board of Patent Appeals and Interferences, having read the Friel reference, presented a line of reasoning to conclude that "it would have been prima facie obvious to optimize the "hardness" of the coating to provide a more durable coating in view of Friel's disclosure that hardness is an important physical property. Friel recognizes "hardness" as an art recognized result effective variable such that it would have been obvious for an artisan with ordinary skill to develop workable or even optimum ranges for such art-recognized, result-effective parameters."

However, the data presented in the Declaration of March 3, 2009 (page 5, Table 2) refute this argument for obviousness. The most common measure of hardness in polymer science is the glass transition point, Tg. The fourth column of Table 2 shows the Tg of the polymer, and the last column shows the scrub resistance. One can readily see that the process conditions of Appellants' claims have an unobvious effect on the polymer properties; for example, the lowest

scrub resistance (326 cycles, Sample 9) results from a Comparative polymer of relatively high Tg (20 °C) made by the Friel process, and the highest scrub resistance (1417 cycles, sample 13) results from an Inventive polymer of relatively low Tg (8 °C) made by Appellants' process.

The prima facie case of obviousness is flawed. The claimed product by process is different to the product formed by the prior art process, and such is not obvious in light of Friel. The claims are both novel and unobvious in light of Friel.

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CONCLUSION

Appellants request reconsideration of the rejection in light of these remarks and the remarks already of record.

Respectfully submitted,

January 18, 2010

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